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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Chen, et al. Application Serial No.: 10/810,965

Filed: March 26, 2004

For: Novel Method to Improve Bump Reliability for Flip Chip Device

Patent No.: Unassigned Issue Date: Unassigned

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

CERTIFICATE UNDER 37 C.F.R. §3.73(b) ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION

1. The assignee of the entire right, title and interest hereby seeks to take action in the PTO in this matter.

IDENTIFICATION OF ASSIGNEE

2. The assignee of this matter is:

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.

8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu, Taiwan 300-77, R.O.C.

PERSON AUTHORIZED TO SIGN

3. Daniel R. McClure Attorney for Assignee

- 4. A chain of title from the inventor(s) to the current assignee is shown below:
 - a. From: Yen-Ming Chen, Chia-Fu Lin, Shun-Liang Hsu, Kai-Ming Ching, Hsin-Hui Lee, Chao-Yuan Su and Li-Chih Chen

To: Taiwan Semiconductor Manufacturing Company, Ltd.

Recorded in PTO: Reel: 012573 Frame: 0276 (parent application)

DECLARATIONS

5. I, the undersigned, have reviewed all the documents in the chain of title of the

\boxtimes	application	
	patent	

matter identified above and, to the best of my knowledge and belief, title is in the assignee identified above.

- 6. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.
- 7. I, the person signing below, aver that I am empowered to sign this statement on behalf of the assignee.

Daniel R. McClure, Reg. No. 38,962

Tel. No. 770-933-9500 Customer No.: 24504

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.

100 Galleria Parkway, Suite 1750 Atlanta, Georgia 30339-5948

Docket No. 252016-2530



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application: Application No.:

Filed: Title:

Commissioner for Patents Washington, D.C. 20231

POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST (REVOCATION OF PRIOR POWERS)

As assignee of record of each of the patent applications listed in the table of attachment A,

REVOCATION OF PRIOR POWERS OF ATTORNEY

all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

NEW POWER OF ATTORNEY

the following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

000047390

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

Daniel R. McClure, Reg. No. 38,962 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.

> 100 Galleria Parkway, Suite 1750 Atlanta, Georgia 30339 770-933-9500 ASSIGNEE OF ENTIRE INTEREST

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.

8, Li-Hsin Rd. 6 Hsinchu Science Park Hsinchu, Taiwan 300-77, R.O.C.

ASSIGNEE CERTIFICATION

The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Taiwan Semiconductor Manufacturing Company, Ltd., I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date: NOJ. 25, 2004

Chien-Wei (Chris) Chou

Director - Intellectual Property Division

Attachment A

No.	Serial No	TSMC No	Application Title	Filing Date	Assignment (Reel/Frame)
1	10/140,647	2001-0941	Prober Index Control for Remote Debugging by Web Browser	5/7/02	012902/0473
2	10/725,810	2001-0972	Method of the Adjustable Matching Map System in Lithography Method of a Floating Pattern	12/2/03	014761/0759
3	10/694,426	2001-1094	Loading System in Mask Dry- Etching Critical Dimension Control	10/27/03	015067/0473
4	10/672,403	2001-1457	Algorithms Tunning for Dynamic Lot Dispatching in Wafer and Chip Probing	9/26/03	014554/0202
5	10/286,626	2001-1265	Application of Impressed-Current Cathodic Protection to Prevent Metal Corrosion and Oxidation	11/2/02	013469/0539
6	10/134,820	2001-1349	Method for Measuring Gate-To- Body Current of Floating-Body PD SOI MOS Devices	4/26/02	012869/0369
				· 4/9/04	Recorded
	10/822,197	2001-1440C	Embedded DRAM for Metal-		013982/0163
7			Insulator-Metal (MIM) Capacitor Structure		at the parent application
					USP6,720,232
8	10/749,698	2001-1510	Multivariate RBR Tool Aging Adjuster	12/31/03	014877/0720
9	10/081,985	2001-0725	Adjustment of N and K Values in a Darc Film	2/21/02	012644/0807
10	10/788,173	2001-1543	Chip Probing Equipment and Test Modeling for Next Generation MES(300MM)	2/26/04	015033/0283
11	10/631,842	2002-0228	Method to Form Self-Aligned Floating Gate to Diffusion Structures in Flash	7/31/03	Filed 7/31/03
12	10/406,122	2001-0938	High Performance Color Filter Process for Image Sensor	4/3/03	014181/0899
	10/420,594	2001-0452B	Method to Fabricate Self-Aligned Source and Drain in Split Gate Flash	4/22/03	Recorded
					012656/0769
13					at the parent
					application
					USP6,573,142
14	10/189,874	2001-0427	SCR-ESD Structures with Shallow Trench Isolation	7/5/02	013086/0425
	10/726,105	2001-0427B	SCR-ESD Structures with Shallow Trench Isolation	12/2/03	Recorded
15					013086/0425
					at the parent
					application
					USP6,720,622

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		10/810,965	2001-0413C	Novel Method to Improve Bump Reliability for Flip Chip Device	3/26/04	Recorded
						012573/0276
	16					at the parent
						application
						USP6,756,294
	17	10/058,474	2001-0353	Electronic Customs Release Slip (E-CRS)	1/28/02	012553/0539
		10/725,852	2001-0088B	Effective Vcc to Vss Power ESD Protection Device	12/2/03	Recorded
						014859/0845
	18					at the parent
						application
						USP6,682,993
		10/357,136	2001-0043B	Novel Low Leakage Current Cascaded Diode Structure	2/3/03	Recorded
						012326/0168
	19					at the parent
						application
						USP6,537,868
,		10/626,778	2000-0659B	Novel Test Structure for Detecting Bridging of DRAM Capacitors	7/24/03	Recorded
						011732/0773
	, 20					at the parent
						application
						USP6,617,180
		10/186,579	2000-0307B	Lossless Co-Planar Wave Guide in CMOS Process	7/1/02	Recorded
						011498/0374
	21					at the parent
						application
						USP6,465, 367
	22	10/272,086	2002-0227	Method to Form Self-Aligned Split Gate Flash with L-Shaped Wordline Spacers	10/16/02	013408/0312

Date: Nov. 25, 2004

Chien-Wei (Chris) Chou Director - Intellectual Property Division